

# Product datasheet

Specifications



## reversing contactor TeSys LC2-D - 3 poles - AC-3 - 440 V 50 A - coil 110 V AC

LC2D50F5

⚠ Discontinued on: 01-Nov-2020

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### Main

Range	TeSys
Product Name	TeSys D
Product Or Component Type	Reversing contactor
Device Short Name	LC2D
Contactor Application	Resistive load Motor control
Utilisation Category	AC-1 AC-3
Device Presentation	Preassembled with reversing power busbar
Poles Description	3P
Power Pole Contact Composition	3 NO
[Ue] Rated Operational Voltage	Power circuit: <= 1000 V AC 25...400 Hz
[Ie] Rated Operational Current	50 A (at <55 °C) at <= 440 V AC AC-3 for power circuit 80 A (at <40 °C) at <= 440 V AC AC-1 for power circuit
Motor Power Kw	15 kW at 220...230 V AC 50 Hz 22 kW at 380...400 V AC 50 Hz 30 kW at 500 V AC 50 Hz 33 kW at 660...690 V AC 50 Hz 25 kW at 415 V AC 50 Hz 30 kW at 440 V AC 50 Hz
Motor Power Hp (UI / Csa)	3 hp at 115 V AC 60 Hz for 1 phase motors 15 hp at 200/208 V AC 60 Hz for 3 phases motors 40 hp at 575...600 V AC 60 Hz for 3 phases motors 40 hp at 460...480 V AC 60 Hz for 3 phases motors 15 hp at 220...240 V AC 60 Hz for 3 phases motors 7.5 hp at 230...240 V AC 60 Hz for 1 phase motors
Control Circuit Type	AC at 50 Hz
[Uc] Control Circuit Voltage	110 V AC 50 Hz
Auxiliary Contact Composition	1 NO + 1 NC
[Uimp] Rated Impulse Withstand Voltage	8 kV conforming to IEC 60947
Overvoltage Category	III
[Ith] Conventional Free Air Thermal Current	10 A (at 60 °C) for signalling circuit
Irms Rated Making Capacity	140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1 900 A at 440 V for power circuit conforming to IEC 60947-4
Rated Breaking Capacity	400 A at 690 V for power circuit conforming to IEC 60947 900 A at 220/415/440 V for power circuit conforming to IEC 60947 900 A at 500 V for power circuit conforming to IEC 60947

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

<b>[Icw] Rated Short-Time Withstand Current</b>	100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit 400 A 40 °C - 10 s for power circuit 810 A 40 °C - 1 s for power circuit 84 A 40 °C - 10 min for power circuit 208 A 40 °C - 1 min for power circuit
<b>Associated Fuse Rating</b>	10 A gG for signalling circuit conforming to IEC 60947-5-1
<b>Average Impedance</b>	1.5 mOhm - Ith 60 A 50 Hz for power circuit
<b>[Ui] Rated Insulation Voltage</b>	Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Signalling circuit: 690 V conforming to IEC 60947-1 Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified Power circuit: 1000 V conforming to IEC 60947-4-1
<b>Electrical Durability</b>	1.4 Mcycles 80 A AC-1 at Ue <= 440 V 1.5 Mcycles 50 A AC-3 at Ue <= 440 V
<b>Power Dissipation Per Pole</b>	3.7 W AC-3 9.6 W AC-1
<b>Front Cover</b>	With
<b>Interlocking Type</b>	Mechanical
<b>Mounting Support</b>	Plate Rail
<b>Standards</b>	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508
<b>Product Certifications</b>	BV CCC CSA DNV GL RINA UL EAC
<b>Connections - Terminals</b>	Control circuit: screw clamp terminals 1 cable(s) 1...4 mm²flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm²flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm²flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm²flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm²solid without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm²solid without cable end Power circuit: screw clamp terminals 1 cable(s) 2.5...25 mm²flexible without cable end Power circuit: screw clamp terminals 2 cable(s) 2.5...16 mm²flexible without cable end Power circuit: screw clamp terminals 1 cable(s) 2.5...25 mm²flexible with cable end Power circuit: screw clamp terminals 2 cable(s) 2.5...10 mm²flexible with cable end Power circuit: screw clamp terminals 1 cable(s) 2.5...25 mm²solid without cable end Power circuit: screw clamp terminals 2 cable(s) 2.5...16 mm²solid without cable end
<b>Tightening Torque</b>	Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 6 N.m - on screw clamp terminals - with screwdriver flat Ø 8 mm Power circuit: 6 N.m - on screw clamp terminals
<b>Operating Time</b>	20...26 ms closing 8...12 ms opening
<b>Safety Reliability Level</b>	B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1
<b>Mechanical Durability</b>	16000000 cycles
<b>Maximum Operating Rate</b>	3600 cyc/h 55 °C

# Complementary

Coil Technology	Built-in bidirectional peak limiting diode suppressor
Control Circuit Voltage Limits	0.3...0.6 Uc (-40...70 °C):drop-out AC 50 Hz 0.85...1.1 Uc (-40...55 °C):operational AC 50 Hz 1...1.1 Uc (55...70 °C):operational AC 50 Hz
Inrush Power In Va	200 VA 50 Hz cos phi 0.75 (at 20 °C) 220 VA 60 Hz cos phi 0.75 (at 20 °C)
Heat Dissipation	6...10 W at 50/60 Hz
Auxiliary Contacts Type	type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1 type mirror contact 1 NC conforming to IEC 60947-4-1
Signalling Circuit Frequency	25...400 Hz
Minimum Switching Current	5 mA for signalling circuit
Minimum Switching Voltage	17 V for signalling circuit
Non-Overlap Time	1.5 ms on de-energisation between NC and NO contact 1.5 ms on energisation between NC and NO contact
Insulation Resistance	> 10 MOhm for signalling circuit

# Environment

Ip Degree Of Protection	IP20 front face conforming to IEC 60529
Protective Treatment	TH conforming to IEC 60068-2-30
Pollution Degree	3
Ambient Air Temperature For Operation	-40...60 °C 60...70 °C with derating
Ambient Air Temperature For Storage	-60...80 °C
Operating Altitude	0...3000 m
Fire Resistance	960 °C conforming to IEC 60695-2-1
Flame Retardance	V1 conforming to UL 94
Mechanical Robustness	Vibrations contactor open: 2 Gn, 5...300 Hz Shocks contactor closed: 10 Gn for 11 ms Shocks contactor open: 8 Gn for 11 ms Vibrations contactor closed: 3 Gn, 5...300 Hz
Height	127 mm
Width	165 mm
Depth	142 mm
Net Weight	2.4 kg

# Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	18 cm
Package 1 Width	18.5 cm
Package 1 Length	25 cm
Package 1 Weight	3.244 kg